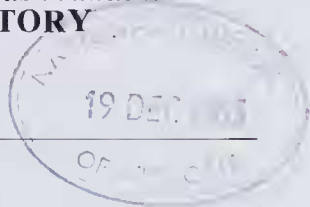


## SOME NOTES ON THE OCCURRENCE OF THE GREAT REED WARBLER *Acrocephalus arundinaceus* IN THE NORTHERN TERRITORY

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### Introduction

The eastern form of the Great Reed Warbler *Acrocephalus arundinaceus orientalis* (Temminck and Schlegel) which is sometimes accorded full specific ranking, has, according to current literature, been recorded on only one occasion in Australia, viz. a specimen collected on Melville Island, N.T. (Hartert 1924, McGill 1970, Storr 1977). This specimen is the type of *A. a. melvillensis* Mathews 1912. It is listed by Mathews (1912) as number 11,728 and is given that number in his collection register. However, the number 11,723 appears on the Mathews specimen label. It is the only *Acrocephalus* specimen collected by J. P. Rogers on Melville Island. It is now registered as AMNH 594413, sex unknown and the collecting locality is 10 miles SE of Snake Bay, Melville Island.

The breeding distribution of *A. a. orientalis* covers northern Mongolia eastwards to south-eastern Transbaikalia, Amurland, Ussuriland, Japan, Manchuria, Korea and China south to the Yangtze Valley (Williamson, 1976). Williamson (*loc. cit.*) records it as wintering over much of South-east Asia between the Philippines and Burma and as a vagrant to Germany. Vaurie (1959) includes the Malay Peninsula, Greater and Lesser Sundas to Timor and South West Islands, Celebes and Moluccas in its wintering range. *A. arundinaceus* has been recorded in the New Guinea area on at least two and probably four occasions (Le Croy 1969, Finch 1980).

### Recent Northern Territory Records

On 13 March 1979, I located a Great Reed Warbler in a clump of *Avicennia* mangroves beside a small pond at the Sanderson Sewerage Ponds, Darwin, N.T. As this was an unusual date for Australian Reed Warblers, *A. australis*, to be in the area (cf. Crawford, 1972), the bird was carefully inspected and identified as a Great Reed Warbler. In my field notes I recorded the Reed Warbler, as appearing bulkier and longer than *australis* with the bill being noticeably different, appearing thick and not so elongated. I thought the area below the buff superciliary stripe was broader and darker and the flanks to be a richer chestnut but later experience showed these characters to be too variable to be of any use in distinguishing the species.

No further evidence of Great Reed Warblers in the Northern Territory was obtained until January 1982, when C. Corben, D. Robinson and others returned to Darwin from Kununurra with a tape recording of an *Acrocephalus* which they thought might be *A. arundinaceus*. I too, after gaining experience of *A. a. orientalis* recently in Asia consider the Kununurra taped call to represent *A. arundinaceus*. C. Corben kindly provided me with a copy of this tape plus a recording of the calls of the Australian Reed Warbler and I resolved to use these tapes to try and locate Great Reed Warblers locally.

Two areas, viz. Holmes Jungle Swamp and Harrison Dam, both of which were

known to have stands of Cumbungi *Typha domingensis* and *T. orientalis*, were selected for study. Small numbers of Australian Reed Warblers had been noted in both areas during dry season months over the past ten years (Crawford 1972, McKean, Thompson *et al.* unpublished). Extensive replay of Reed Warbler tapes at Holmes Jungle Swamp during January 1982 failed to elicit any response from Reed Warblers there and it was assumed that none were in the area.

H. A. F. Thompson and I visited Harrison Dam in the Humpty Doo area on 13 January 1982. Using tape recordings we lured into view one Gray's Grasshopper Warbler, *Locustella fasciolata*\*, three Australian Reed Warblers and one bird which we both considered to be a Great Reed Warbler. Our field description reads 'larger than Australian Reed Warbler, perhaps 1-2 cm greater in length. The bill appears deeper and not as long, and the skull flatter; head and mantle duller and the superciliary stripe distinct but not as elongated. A few striations or streakings were noted on the upper breast'.

S. B. Raskin and I visited Harrison Dam on 22 January 1982. We set up two mist nets in the cumbungi beds and with the aid of the Reed Warbler tape, managed to lure one Great Reed Warbler and four Australian Reed Warblers into the nets. The Great Reed Warbler was kept for a specimen and is housed in Darwin at the Conservation Commission of the Northern Territory. A. L. Spring and I again visited the area on 11 February 1982. Using the same techniques we captured three Australian Reed Warblers and one Great Reed Warbler. The Great Reed Warbler was retained as a study skin and is to be deposited with the Queensland Museum. At Sanderson Sewerage Ponds, Darwin, N.T. on 13 March 1982 a Reed Warbler was seen skulking in mangroves *Avicennia* by John Whitaker and myself. Although the bird was not adequately seen, I identified it as a Great Reed Warbler, on the basis of its harsh grating call. J. Whitaker, A. L. Spring and I set up two mist nets at Harrison Dam on 23 March 1982, and captured two Great Reed Warblers and two Australian Reed Warblers. These birds were released after banding with CSIRO bird-rings.

The early part of the 1983 wet season was characterised by virtually no rainfall and at the end of February. Harrison Dam contained no more than 20 cm of water at its deepest point. Normal wet season rainfall commenced in March but the cumbungi in Harrison Dam was severely set back and the habitat seemed unsuitable for Reed Warblers. Tape recordings and mist nets were again utilised during four visits in January, February and April, but no Reed Warblers were recorded. Unfortunately, I did not have sufficient time to check other potential localities for Reed Warblers; however, H. A. F. Thompson located one singing bird in a small patch of cumbungi close to Leanyer Dump, Darwin on 9 January 1983. The Great Reed Warbler in this instance was identified on the basis of its call. It seems likely that Great Reed Warblers regularly visit northern Australia on an annual basis during the wet season and that their local occurrence is probably part dependent on habitat availability which is often dependent, in turn, on local rainfall.

### Moult

The Great Reed Warbler specimen collected on 22 January 1982, an immature female, had the remiges moderately worn, the rectrices well worn and the body plumage in active moult. The specimen collected on 11 February 1982, an immature male, had well worn remiges and rectrices and the body plumage in active moult. Of

\* The sighting of this species which was only observed adequately by McKean will be published in a separate note in due course.

the two birds captured on 23 March 1982, one (022-21831) had very worn secondaries and rectrices while primaries, wing coverts and body feathers were in active moult; the other (022-21834) was in active moult, everywhere, except the secondaries and secondary coverts which were old but not worn. The specimens were aged and sexed on the basis of degree of skull ossification and condition of gonads.

### Measurements

Measurements in millimetres and grammes of the immature female collected on 22 January 1982 and the immature male collected on 11 February 1982, are respectively: total length 175, 164; wingspan 235, 222; wing 79, 73; tail 68, 62; weight 19.5, 18; bill, exposed culmen 16.4, 15.2; bill, from base 24.1, 21.1; bill, depth from rear of nares 4.8, 4.2; tarsus 26.8, 25.4; middle-toe 17.8, 16.8; claw 7.5, 7.2.

### Subspecific Identification of Specimens

The immature female collected on 22 January 1982, on the basis of measurements, wing formula and plumage features, I consider to be an example of the race *A. a. orientalis* (Temminck and Schlegel). I cannot, however, assign the other specimen to this race. Wear on the primaries and rectrices is considerable negating the value of wing formula and wing and tail measurement as racial discriminants. However, the bird is, judging by other measurements, rather small for *orientalis*. It lacks that form's streaking on the upper breast. This, however, may be absent in heavily abraded *orientalis*. I wondered whether the specimen might not be an example of *A. a. celebensis* (Heinroth) which, according to the original description of the type is of a similar size. I have not been able to locate any other measurements of this form, and in fact, from the description, one could not be certain that Heinroth was not describing some sort of *A. australis*. If the problem specimen had not had the characteristic shaped bill of *arundinaceus* it could easily have been mistaken for *australis*. Racial determination of this specimen must await comparison with adequate series of all forms of the *Acrocephalus arundinaceus/orientalis/stentoreus/australis* complex.

### Taxonomic Notes on *Acrocephalus stentoreus/australis*

Current usage in Australia (e.g. Schodde, 1975) combines *A. australis* (Gould) and its various subspecies with *A. stentoreus* Linnaeus. This is apparently based on the opinions of Hartert (1924) and Stresemann and Arnold (1949). I, like Finch (1980), feel that the evidence justifying this lumping is not strong enough. The wide hiatus in the range alone is sufficient for one to seriously consider the possibility of divergence while similarities in size could be due to convergence. In addition, the calls and song to my ear, are quite distinct. My observations on *A. stentoreus* (sens. strict.) were made at Bharatpur, India during October 1982.

### Field Identification

McGill (1970) states that *orientalis* is 'not distinguishable in the field from *australis* by any noticeable plumage characteristic, but the wing is comparatively longer. With experience, it probably could be separated by the call-notes'. I concur with McGill that it would be difficult to separate the two Reed Warblers by plumage characteristics. The Great Reed Warbler is noticeably larger, not only in wing but in length and in bulk or general body size. This, however, is not readily apparent to even the most astute observer if the bird is seen without the other species available for comparison. Even then, some people would have problems.

Differences in wing formula are extremely difficult to ascertain in the field, particularly with a skulking species such as the Great Reed Warbler out of breeding season. Moreover, the wing formula of the Australian Reed Warbler is fairly variable (Mayr, 1948), while Great Reed Warblers could be expected to have their wing feathers heavily abraded or in active moult during much of their wintering period in northern Australia.

Pizzey (1980) states that the inside of the mouth of *orientalis* is salmon while that of *australis* is yellow. I found the inside of the mouth of both Reed Warblers to be indistinguishable and somewhere near salmon in shade. Comparison of *australis* and *orientalis* in the hand showed the irides of *orientalis* to be a deeper brown. I have not been able to pick this difference in the field but it might be possible under extremely favourable viewing conditions. Another in hand difference noted that may have limited use in the field is that the exposed culmen ridge penetrates deeper into the frontal feathers (i.e. is exposed much further past the nares) in *australis* than in *orientalis*.

Our experience indicates that Great Reed Warblers rarely sing in northern Australia but the song is none-the-less quite distinctive being lower in pitch and having a much more guttural quality than that of Australian Reed Warblers. With practice even the contact and alarm calls may be distinguished. Despite the differences in song and calls Great Reed Warblers will respond to tapes of Australian Reed Warblers and vice versa.

By far the most useful field character that I have found to be reliable, is the length and depth of the bill in relation to the length of the crown or as judged from the position of the eye in the head. Great Reed Warblers give the impression of having a thicker and shorter bill than that of Australian Reed Warblers. Figure 1 shows a Great Reed Warbler illustrating the size and shape of the bill in comparison with the rest of the body, while Figure 2 compares the head and bills of Great (upper) and Australian (lower) Reed Warblers. The actual length of Australian Reed Warblers' bills, however, overlaps that of the Great Reed Warbler and it is mainly due to it being more slender that the impression of a longer bill is achieved.

My conclusions concerning bill shape were gained prior to the reported sightings and resulted from studying and comparing many photographs of *A. arundinaceus* (mainly of the nominate race) and *A. australis*. Later, during 1982 I was able to observe many hundreds of *A. arundinaceus* in Asia and confirm that the bill of the eastern form *orientalis* also appeared thicker and shorter than that of *australis*. No comments are made on the relative usefulness of tail shape (c.f. Williamson, 1976) in identification as most of the *orientalis* that I have seen or handled in Australia have had heavily abraded tails.

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*Fig. I: Great Reed Warbler captured at Harrison Dam, Humpty Doo area, N.T. January 22, 1982. Photo Keith Martin.*



*Fig. II: Comparative study of head and bill profiles of Great Reed Warbler (above) and Australian Reed Warbler (below). Harrison Dam, January 22, 1982. Photo Keith Martin.*

### Summary

Recent occurrences of the Great Reed Warbler *Acrocephalus arundinaceus* in the Northern Territory are documented. The species is probably a regular wet season visitor in small numbers that has been previously overlooked because of its secretive nature, and the problems of distinguishing it in the field. Most of the birds visiting the Australasian region probably belong to the race *orientalis* but it was not possible to positively identify one specimen to race. Some notes on the nomenclature used for the Australian Reed Warbler are given and criteria for distinguishing the two Reed Warblers is discussed.

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